

1 **SECOND SUPPLEMENTAL DIRECT TESTIMONY OF**

2 **David K. Baker**

3 **ICC NO. 03- 0365**

4 **APPLICATION OF ILLINOIS-AMERICAN WATER COMPANY**
5 **FOR APPROVAL OF A CERTIFICATE OF PUBLIC CONVENIENCE**
6 **AND NECESSITY TO CONSTRUCT AND OPERATE AN EXTENSION OF ITS WATER**
7 **DISTRIBUTION SYSTEM IN CHAMPAIGN COUNTY, ILLINOIS**
8 **PURSUANT TO SECTION 8-406 OF THE PUBLIC UTILITIES ACT**
9
10

11 **Q. Will you please state your name, business address, and telephone number for the**
12 **record?**

13 **A. David K. Baker. My business address and telephone number are 201 Devonshire,**
14 Champaign, IL 61826-9018, phone (217) 352-7001.

15 **Q. Are you the same David K. Baker who has previously filed Direct Testimony and**
16 **Supplemental Direct Testimony in this matter?**

17 **A. Yes.**

18 **Q. Are you familiar with the Petition which has been filed in this proceeding?**

19 **A. Yes, I am.**

20 **Q What is the purpose of your second supplemental testimony?**

21 **A. In my prior testimony, I did not address whether additional points of connection or**
22 alignment of the proposed supply was considered nor did I address whether the
23 proposed location is the least costs location. My testimony will address those issues.

24 **Q. Were additional points of connection and alignment considered for the proposed**
25 **water supply main extension?**

26 **A. Yes. Several different starting points were reviewed for the connection with the**
27 Embarras Area Water District ("District"). The District selected the location of the
28 delivery connection to its system based upon the layout of their water distribution system
29 and the point closest to the Champaign and Douglas County line.

1 **Q. What alternate starting points were considered?**

2 **A.** The Company's existing distribution system has two mains located in the southern
3 portion of its service area. The mains are located within eight and a half miles of the
4 proposed delivery point. Both mains were constructed in the 1990s to provide service to
5 wholesale water to communities located in the southern portion of the Company's
6 service area.

7
8 Option 1:

9 *Village of Tolono Wholesale Connection:*

10 The Company has a 12-inch diameter main that primarily provides water to the Village of
11 Tolono, currently a wholesale customer. The 12-inch main is located just north of the
12 center of the village. In order to provide water to Embarras, the existing 12-inch main
13 would be extended through the Village of Tolono and require two railroad crossings to
14 reach the point of delivery with the water district. This potential alignment would require
15 approximately 45,000 lineal feet of main.

16
17 The current capacity of the 12-inch line is sufficient to provide water to the growing
18 community of the Village of Tolono. However, hydraulic analysis indicated that adding
19 the expected demand of 1 MG for the water district and the expected village 2020
20 demand of 0.25 MG would impact the ability of the Company to maintain service to the
21 village.

22
23 Option 2:

24 *Tuscola/ Arcola Wholesale Connection (Proposed Connection Point):*

1 The Company has a 16-inch/14-inch supply main that provides water to the communities
2 of Tuscola and Arcola, approximately 20 miles south of Champaign/Urbana. The
3 existing main is located approximately 6 miles north of the Douglas and Champaign
4 County line. In order to provide water to Embarras, the existing main would be extended
5 approximately 42,000 lineal feet and would require one railroad crossing to reach the
6 point of delivery.

7
8 Hydraulic analysis indicated that the existing main is able to meet the combined demand
9 requirements of 1 MG for the communities of Tuscola and Arcola, as well as the
10 expected additional demand of 1 MG from the water district. Due to the connection of
11 the 16-inch/14-inch to a robust portion of the distribution system, the connection will be
12 able to respond to the additional demands with a minimal impact to current customers.

13 **Q. Is the proposed starting point the least costs alternative?**

14 **A.** Yes. The selected option requires 3,000 less lineal feet to reach the connection point.
15 There are fewer railroad crossings, which can be difficult to negotiate. The selected
16 option has existing capacity to meet the customers needs, thus, there will be no need to
17 construct facilities to increase capacity.

18 **Q. What alternate alignments were considered for the installation of the water supply**
19 **main to connect the delivery point to the Tuscola/Arcola main?**

20 **A.** Three separate alignments were considered for the installation for the supply main.
21 Each alignment was traveled and preliminary design analysis was conducted for
22 construction feasibility. For convenience, attached to my Second Supplemental Direct
23 Testimony is Exhibit SSD-1, a map that identifies the alternatives that were considered.

1 *Option 1:*

2 *East Alignment:*

3 The East Alignment extended the supply main east along County Highway 17 and then
4 south along Township Road 1100 East to the point of delivery. (Exhibit SSD-1). This
5 alignment would require that the main pass through a residential area that is currently
6 served by the Village of Tolono and pass under U.S. Route 45 and the CN Railroad near
7 a major intersection with County Highway 17. In addition, on the North end of Township
8 Road 1100 East, construction of the supply main would be difficult due to Hacker Branch
9 drainage ditch paralleling the township road for approximately 1/2 mile. Due to the
10 proximately of the drainage ditch, it was expected that a significant increase in field tiles
11 would be encountered during construction.

12
13 *Option 2:*

14 *Route 45 Alignment:*

15 The Route 45 Alignment would extend the supply main east along County Highway 17,
16 then south along U.S. Route 45, then east along Township Road 300 North and then
17 south along Township Road 1100 East to the point of delivery. (Exhibit SSD-1). This
18 proposed alignment would require the main to be placed within the current service area
19 of the Village of Tolono. In addition, this proposed alignment would parallel the state
20 highway right of way which may require relocation if the highway is expanded in the
21 future. The Company had additional concerns regarding increased construction costs
22 due to considerations of traffic control and limited right of way access along the state
23 highway.

24
25 *Option 3:*

1 *West Alignment (Current Proposed Alignment):*

2 The West Alignment extends the supply main east along County Highway 17, then
3 South along Township 1000 East, then East along Township Road 300 North and then
4 South along Township Road 1100 East to the point of delivery. (Exhibit SSD-1) This
5 proposed alignment places the supply along the County Highway 17 for a shorter
6 distance than the other two options. It, also, avoids entering the current service area of
7 the Village of Tolono. The selected alignment places the supply main within agricultural
8 areas, which will reduce construction difficulties and, therefore, costs, more than the
9 other two options.

10 **Q. Why is the proposed alignment the least cost alternative?**

11 **A.** The proposed alignment has an estimated cost of \$1,482,400. This estimate was based
12 upon 42,000 lineal feet of 12-inch main, one railroad bore and jack and three roadway
13 bores.

14 The East option was estimated at \$1,510,000. This estimate was based upon 42,000
15 lineal feet of main, one railroad bore, three roadway bores and four additional
16 easements. In addition, ½ mile of this route would be in conflict with a drainage ditch
17 and, therefore, it was anticipated that more field tile would be damaged during
18 construction which would then need to be repaired.

19 The Route 45 option was estimated at \$1,556,300. This estimate was based upon
20 42,000 lineal feet of main, one railroad bore, three roadway bores and four additional
21 easements. Three miles of this route would be along Route 45 which would reduce
22 productivity and increase traffic control costs.

23 Attached to my Second Supplemental Direct Testimony as Exhibit SSD-2 are three
24 pages which demonstrate the estimated costs for each proposed route. Based upon

1 these calculations, the Company determined that the West Option is the least cost
2 alternative.

3 **Q.** **Does this conclude your testimony?**

4 **A.** Yes, it does.